

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently amended) A computer-implemented method for modifying network configuration information on a client node, the method comprising:
establishing a first-network connection between the client node and a host node using at least one network configuration parameter;
~~collecting~~ accessing configuration history information on the client node, the configuration history information having at least one parameter that is related to the first network connection describing parameters of a previous and no longer active network connection between the client node and the host node;
~~accessing~~ analyzing policy information on the client node, the policy information having including a rule that is used for specifying a predetermined criterion desired network connection performance rule;
using the configuration history information along with the policy information to determine whether at least one of the parameters of the previous and no longer active network connection fails to satisfy the desired network connection performance rule; and
if one of the parameters in the configuration history information does not satisfy the predetermined criterion if it is determined that the at least one of the parameters of the previous and no longer active network connection fails to satisfy the desired network connection performance rule, modifying one of the at least one network configuration parameters parameter used to establish the network connection between the client node and the host node; and
~~establishing a second network connection between the client node and the host node using the modified network configuration parameter.~~

2. (Currently amended) The computer-implemented method of claim 1, ~~further comprising receiving the policy information from the host node prior to analyzing the policy information~~wherein accessing the policy information includes:
receiving the policy information from the host node; and
analyzing the received policy information.

3. (Currently amended) The computer-implemented method of claim 1, wherein:
establishing the network connection includes establishing the first network connection
~~comprises a first modem connection using at least one modem configuration parameter;~~
~~the at least one network configuration parameter comprises at least one modem~~
~~configuration parameter; and~~
modifying the at least one network configuration parameter includes modifying the at
least one modem configuration parameter~~the second network connection comprises a second~~
~~modem connection.~~

4. (Currently amended) The computer-implemented method of claim 1, further comprising:
~~if it is determined that at least one of the parameters in the configuration history~~
~~information does not of the previous and no longer active network connection fails to satisfy the~~
~~desired network connection performance rule, satisfy the predetermined criterion; modifying a~~
~~plurality of the network configuration parameters; and~~
~~establishing a second network connection between the client node and the host node~~
~~using the modified plurality network configuration parameters.~~

5. (Original) The computer-implemented method of claim 4, wherein the at least one modem configuration parameter includes a dialed number parameter and a connection speed parameter.

6. (Original) The computer-implemented method of claim 5, wherein the at least one modem configuration parameter further includes a data compression technique parameter and a modulation technique parameter.

7. (Currently amended) The computer-implemented method of claim 1, wherein: establishing the first-network connection comprises a first~~includes establishing an~~ Internet connection between the client node and the host node using at least one Internet configuration parameter;

~~the at least one network configuration parameter comprises at least one Internet configuration parameter;~~ and

modifying the at least one network configuration parameter further includes modifying the at least one Internet configuration parameter to establish the second-network connection~~comprises a second Internet connection.~~

8. (Original) The computer-implemented method of claim 7, wherein the at least one Internet configuration parameter includes a host Internet Protocol (IP) address parameter and a connection speed parameter.

9. (Original) The computer-implemented method of claim 8, wherein the at least one Internet configuration parameter further includes a data compression technique parameter and an encryption technique parameter.

10-12. (Canceled)

13. (Currently amended) The computer-implemented method of claim 1, wherein the performance rule contained in the policy information include~~includes~~ a rule for specifying eest or performance criteria.

14. (Currently amended) The computer-implemented method of claim 1, wherein the policy information further includes host access information used by the client node when modifying the at least one network configuration parameter.

15. (Original) The computer-implemented method of claim 14, wherein the host access information includes at least one modem access number.

16. (Original) The computer-implemented method of claim 14, wherein the host access information includes at least one Internet Protocol (IP) address.

17. (Currently amended) The computer-implemented method of claim 1, further comprising:

terminating the ~~first network~~ connection; and
establishing a second network connection based on the modified at least one network configuration.

18. (Original) The computer-implemented method of claim 1, further comprising sending the configuration history information to the host node.

19. (Currently amended) The computer-implemented method of claim 1, further comprising:

establishing a second network connection based on the modified at least one network parameter; and

collecting additional configuration history information on the client node, the additional configuration history information ~~containing~~ including at least one parameter that is related to the second network connection.

20. (Currently amended) A computer system, comprising:

~~a storage device to store a database;~~

~~a memory; and~~

~~a processor operable to execute instructions contained in the memory, the processor being thereby programmed to:~~

~~establish a first network connection with-between a client node and a host node using at least one network configuration parameter stored in the database;~~

~~store access configuration history information in the database, the configuration history information having at least one parameter that is related to the first network connection describing parameters of a previous and no longer active network connection between the client node and the host node;~~

~~analyze access policy information having a rule that is used for specifying a predetermined criterion including a desired network connection performance rule;~~

~~use the configuration history information along with the policy information to determine whether at least one of the parameters of the previous and no longer active network connection fails to satisfy the desired network connection performance rule; and~~

~~if one of the parameters in the configuration history information does not satisfy the predetermined criterion, modify one of the network configuration parameters; and~~

~~establish a second network connection with the host node using the modified network configuration parameter~~

~~if it is determined that the at least one of the parameters of the previous and no longer active network connection fails to satisfy the desired network connection performance rule, modify the at least one network configuration parameter used to establish the network connection between the client node and the host node.~~

21. (Original) The computer system of claim 20, further comprising an input/output device.

22. (Currently amended) The computer system of claim 20, further comprising a network adaptor to interface with a network device during establishment of the ~~first and second~~ network ~~connections~~connection.

23. (Original) The computer system of claim 22, wherein the network device is a modem.

24. (Original) The computer system of claim 22, wherein the network device is a cable modem.

25. (Currently amended) A computer system, comprising:
means for establishing a ~~first~~ network connection between a client node and a host node using at least one network configuration parameter;

means for ~~collecting~~ accessing configuration history information ~~on the client node, the configuration history information containing at least one parameter that is related to the first network connection describing parameters of a previous and no longer active network connection between the client node and the host node;~~

means for ~~analyzing~~ accessing policy information on the client node including a desired network connection performance rule, the policy information containing a rule that is used for specifying a predetermined criterion;

means for using the configuration history information along with the policy information to determine whether at least one of the parameters of the previous and no longer active network connection fails to satisfy the desired network connection performance rule; and

means for modifying the at least one network configuration parameter used to establish the network connection between the client node and the host node if it is determined that the at least one of the parameters of the previous and no longer active network connection fails to satisfy the desired network connection performance rule.

if one of the parameters in the configuration history information does not satisfy the predetermined criterion, means for modifying one of the network configuration parameters; and
means for establishing a second network connection between the client node and the host node using the modified network configuration parameter.

26. (Currently amended) A computer-readable medium having computer-executable instructions contained therein for performing a method, the method comprising:
establishing a first network connection between a client node and a host node using at least one network configuration parameter;
~~collecting~~ accessing configuration history information ~~on the client node, the configuration history information containing at least one parameter that is related to the first network connection describing parameters of a previous and no longer active network connection between the client node and the host node;~~
~~analyzing~~ accessing policy information including a desired network connection performance rule on the client node, the policy information containing a rule that is used for specifying a predetermined criterion;
using the configuration history information along with the policy information to determine whether at least one of the parameters of the previous and no longer active network connection fails to satisfy the desired network connection performance rule; and
if it is determined that the at least one of the parameters of the previous and no longer active network connection fails to satisfy the desired network connection performance rule, modify the at least one network configuration parameter used to establish the network connection between the client node and the host node.
if one of the parameters in the configuration history information does not satisfy the predetermined criterion, modifying one of the network configuration parameters; and
establishing a second network connection between the client node and the host node using the modified network configuration parameter.

27. (New) The computer-implemented method of claim 1, wherein accessing the configuration history information includes accessing the configuration history information stored on the client node.

28. (New) The computer-implemented method of claim 1, wherein accessing the configuration history information includes accessing information related to a last network connection speed and specifying speed of the previous network connection between the client node and the host node.

29. (New) The computer-implemented method of claim 1, wherein accessing the configuration history information includes accessing information related to a last dialed number associated with the previous network connection and specifying a previous number dialed by the client node to access the host node.

30. (New) The computer-implemented method of claim 1, wherein accessing the configuration history information includes accessing configuration history information describing last Internet Protocol (IP) associated with the previous network connection, the last IP address specifying previous IP address used by the client node to access the host node.

31. (New) The computer-implemented method of claim 1, wherein accessing the configuration history information includes accessing configuration history information describing performance of the previous network connection between the client node and the host node.

32. (New) The computer-implemented method of claim 1, wherein accessing the policy information includes accessing a desired network configuration performance rule that relates to at least one of failure rate information, abnormal disconnect rate, connect failure rates, retain rates, busy rates, or signal-to-noise rate of the previous network connection.

33. (New) The computer-implemented method of claim 1, further comprising accessing the policy information from storage on the client node.

34. (New) The computer-implemented method of claim 1, wherein modifying the at least one network configuration parameter includes modifying the at least one network configuration parameter used to establish the network connection between the client node and the host node so that the network connection is configured to operate as the desired network connection.

35. (New) The computer-implemented method of claim 3, wherein modifying the at least one modem configuration parameter includes establishing a second network connection with a second modem connection.

36. (New) The computer-implemented method of claim 1, wherein accessing the policy information includes accessing the policy information indicating that cost considerations are to be prioritized in determining whether the at least one parameter of the previous and no longer active network connection fails to satisfy the desired network connection performance rule.

37. (New) The computer-implemented method of claim 1, wherein accessing the policy information includes accessing the policy information indicating that performance considerations are to be prioritized in determining whether the at least one parameter of the previous and no longer active network connection fails to satisfy the desired network connection performance rule.

38. (New) The computer-implemented method of claim 1, wherein accessing the policy information includes accessing the policy information indicating that cost and

performance considerations are to be used in a predetermined weighting in determining whether the at least one parameter of the previous and no longer active network connection fails to satisfy the desired network connection performance rule.

39. (New) A computer-implemented method for modifying network configuration information on a client node, the method comprising:

- establishing a network connection between a client node and a host node using at least one network configuration parameter;

- collecting, on a client node, configuration history information, the configuration history information describing parameters of a previous and no longer active network connection between the client node and a host node;

- storing, on the client node, the configuration history information;

- accessing the configuration history information stored on the client node;

- accessing policy information stored on the client node, the policy information including a desired network connection performance rule;

- using the configuration history information along with the policy information to determine whether at least one of or combination of the parameters of the previous and no longer active network connection fails to satisfy the rule associated with the desired network connection; and

- if it is determined that the at least one of the parameters of the previous and no longer active network connection fails to satisfy the desired network connection performance rule, modifying the at least one network configuration parameter used to establish the network connection between the client node and the host node.

40. (New) The computer-implemented method of claim 39, wherein:

- establishing the network connection includes establishing a modem connection using at least one modem configuration parameter;

modifying the at least one network configuration parameter includes modifying the at least one modem configuration parameter to establish a second network connection, wherein the second network connection is in agreement with the desired network connection.

41. (New) The computer-implemented method of claim 39, further comprising:
if it is determined that at least one of the parameters of the previous and no longer active network connection fails to satisfy the desired network connection performance rule, modifying a plurality of the network configuration parameters; and
establishing a second network connection between the client node and the host node using the modified plurality network configuration parameters.

42. (New) The computer-implemented method of claim 41, wherein the at least one modem configuration parameter includes a dialed number parameter and a connection speed parameter.

43. (New) The computer-implemented method of claim 42, wherein the at least one modem configuration parameter further includes a data compression technique parameter and a modulation technique parameter.

44. (New) The computer-implemented method of claim 39, wherein:
establishing the network connection includes establishing an Internet connection between the client node and the host node using at least one Internet configuration parameter; and
modifying the at least one network configuration parameter further includes modifying the at least one Internet configuration parameter to establish a second Internet connection.

45. (New) The computer-implemented method of claim 44, wherein the at least one Internet configuration parameter includes a host Internet Protocol (IP) address parameter and a connection speed parameter.

46. (New) The computer-implemented method of claim 45, wherein the at least one Internet configuration parameter further includes a data compression technique parameter and an encryption technique parameter.

47. (New) The computer-implemented method of claim 39, further comprising:
terminating the network connection; and
establishing a second network connection based on the modified at least one network configuration.

48. (New) The computer-implemented method of claim 39, further comprising:
establishing a second network connection based on the modified at least one network parameter; and
collecting additional configuration history information on the client node, the additional configuration history information containing at least one parameter that is related to the second network connection.

49. (New) The computer-implemented method of claim 39, wherein accessing the configuration history information includes accessing information related to a last network connection speed and specifying speed of the previous network connection between the client node and the host node.

50. (New) The computer-implemented method of claim 39, wherein accessing the configuration history information includes accessing information related to a last dialed number associated with the previous network connection and specifying a previous number dialed by the client node to access the host node.

51. (New) The computer-implemented method of claim 39, wherein accessing the configuration history information includes accessing configuration history information describing last Internet Protocol (IP) associated with the previous network connection, the last IP address specifying previous IP address used by the client node to access the host node.

52. (New) The computer-implemented method of claim 39, wherein accessing the configuration history information includes accessing configuration history information describing performance of the previous network connection between the client node and the host node.

53. (New) The computer-implemented method of claim 39, wherein accessing the policy information includes accessing a desired network configuration performance rule that relates to at least one of failure rate information, abnormal disconnect rate, connect failure rates, retain rates, busy rates, or signal-to-noise rate of the previous network connection.

54. (New) The computer-implemented method of claim 39, wherein modifying the at least one network configuration parameter includes modifying the at least one network configuration parameter used to establish the network connection between the client node and the host node so that the network connection is configured to operate as the desired network connection.

55. (New) The computer-implemented method of claim 39, wherein accessing the policy information includes accessing the policy information indicating that cost considerations are to be prioritized in determining whether the at least one parameter of the previous and no longer active network connection fails to satisfy the desired network connection performance rule.

56. (New) The computer-implemented method of claim 39, wherein accessing the policy information includes accessing the policy information indicating that performance considerations are to be prioritized in determining whether the at least one parameter of the previous and no longer active network connection fails to satisfy the desired network connection performance rule.

57. (New) The computer-implemented method of claim 39, wherein accessing the policy information includes accessing the policy information indicating that cost and performance considerations are to be used in a predetermined weighting in determining whether the at least one parameter of the previous and no longer active network connection fails to satisfy the desired network connection performance rule.